

U.S. Army Chemical Corps Research and Development Command
U. S. ARMY BIOLOGICAL WARFARE LABORATORIES
Fort Detrick, Frederick, Maryland

CMIRD-BW-10-PD

11 February 1960

Dr. Joshua Lederberg
Department of Genetics
Stanford University School of Medicine
Palo Alto, California

Dear Dr. Lederberg:

Dr. Clark Randt was kind enough to send me a copy of the paper on exobiology which you gave at the COSPAR meeting in Nice. The original was much more interesting and informative than Time's version of it.

I was particularly interested in your discussion of possible ways to instrument collecting devices which could be used on drone flights. I thought you might be interested in a device being developed under our auspices as a possible BW alarm which has several of the features you described. A manuscript copy of a paper on this subject is inclosed. This has been cleared by the Department of Defense, but not yet sent to a Journal for publication. The paper describes only a scanner which picks out and counts stained particles. There has also been developed a device which automatically collects aerosol particles on a tape, stains and positions them in the scanner. Neither device could be used as is, but there are principles in both which may be applicable.

Have you heard anything more as to whether any plans are being made concerning the relatively simple experiment we discussed in your office of determining the effect of the hard vacuum of outer space on microorganisms? This, I believe, would be quite simple to instrument. The Army would hardly undertake to sponsor such an experiment, but I think we could give some help to anyone who might be willing to undertake it.

Our work with NASA is somewhat slow getting under way, largely due to a great need for education on both sides before we can really start working smoothly together. My people and I have been traveling trying to learn something about how space probes are made. At the same time we are attempting to tell the astrophysicists in their laboratories what the biologists are asking them to do and why it is important.

We will have a little more to say on this subject at the Society of American Bacteriologists' meeting in Philadelphia on May 14th. We

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had been invited to participate in a panel meeting on antiseptics and disinfectants, and thought this might provide an excellent forum in which we could engage in a technical discussion of how one would proceed to sterilize a space probe and briefly summarize our experiments to date along this line. NASA has agreed to such a release of information on our joint project.

Sincerely,

A handwritten signature in cursive script that reads "Charles R. Phillips".

1 Incl
Manuscript

CHARLES R. PHILLIPS
Chief, Physical Defense Division